Motivating Changes in Health Behaviours

Prof K Srinath Reddy, President, Public Health Foundation of India
President, World Heart Federation
Bernard Lown Professor of Cardiovascular Health,
Harvard School of Public Health

New Delhi, India
ksrinath.reddy@phfi.org
Health Outcomes Are Related To Health Behaviours (Across Health Transition)

<table>
<thead>
<tr>
<th>Pre-Transitional</th>
<th>Post-Transitional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization</td>
<td>Dietary Patterns</td>
</tr>
<tr>
<td>Institutional Deliveries</td>
<td>Physical Activity</td>
</tr>
<tr>
<td>Exclusive Breast Feeding</td>
<td>Tobacco Consumption</td>
</tr>
<tr>
<td>Contraception</td>
<td>Alcohol Consumption</td>
</tr>
<tr>
<td>Insecticide Impregnated Bed Nets</td>
<td>Seat Belts/Helmets</td>
</tr>
<tr>
<td>Safe Sexual Behaviour</td>
<td>Adherence to Drugs</td>
</tr>
</tbody>
</table>
Chronic Diseases- Today’s Behaviors Are Tomorrow's Risk Factors; Today’s Risk Factors Are Tomorrow’s Diseases

- Risk behaviors
  - Unhealthy Diet
  - Tobacco use
  - Physical Inactivity
  - Alcohol
  - Environmental pollution

- Risk factors
  - Raised Blood pressure
  - Raised Blood sugar
  - Raised Blood lipids
  - Obesity and overweight

- NCDS
  - Coronary Heart Diseases
  - Diabetes
  - Stroke
  - Cancers
  - Chronic Respiratory Disease
Response To Health Transition

**POPULATIONS**

Demographic and Social Determinants

**INDIVIDUALS**

Biology + Beliefs + Behaviors

Clinical + Behavioral Interventions
Determinants Of NCD Risk

GLOBAL

GLOBAL

NATIONAL

Development
(stage and speed)

Distribution
(equity)

Demand- Supply
(trade)

COMMUNITY

Perceptions
(cultural)

Priorities
(socio-economic)

Pathways
(availability, access)

FAMILY

INDIVIDUAL

Beliefs
Behaviours
Biology
The Health Of

PERSONS

PEOPLE

POPULATIONS

CALLS FOR DIFFERENT LEVELS OF ACTION
Behaviour Change

- In Individuals
- In Families
- In Communities
- In Health Professionals
- In Policymakers
- In Countries
- In Transnational Organizations

[Diagram with Governmental and Non-Governmental labels]
Perceptions Of Risk

• Not all individuals at risk become ill
• Some risks are considered acceptable
• So, being “at risk” is insufficient to motivate change in behaviour
• Likelihood of change is based on
  – Knowledge
  – Attitudes
  – Skills
  – Environment
Principles Of Health Promotion

Knowledge

Motivation

Skills

I know

I want

I can

I Act

Help is Available

Supportive Services

Perform Personally

Reach & Teach (Involve Others)

It is possible

Enabling Environment
Theories Commonly Used In Health Promotion

- **Individuals**
  - Cognitive dissonance model
  - Health belief model
  - Theory of reasoned action and planned behaviour
  - Protection motivation theory
  - The trans-theoretical (stages of change) model
  - Social cognitive theory

- **Populations**
  - Community mobilisation
  - Organisational change theory
  - Diffusion of innovation theory
  - Social marketing
  - Ecological model
Say not ‘I have found the truth’
But, rather, ‘I have found a truth’

-Kahlil Gibran
-(Lebanese Poet-Philosopher; 1883-1931)
Is Change Possible?

• *Since one goal of health promotion is to change behaviour, an understanding of the behaviour change process is essential*

• *Human behaviour, and especially health behaviour, is complex and not always readily understandable.*

Egger, Spark & Donovan (2005)
What Motivates Health Behaviour?

- Intentions to adopt a healthy behaviour are triggered by stimuli
  - But individual responses differ
- Healthy behaviours might be adopted
  - But reasons for doing so may differ
- Motivation for health behaviour is dynamic
# Trans – Theoretical Model

*(Prochaska, Di Clemente; 1984)*

<table>
<thead>
<tr>
<th>Stage of Change</th>
<th>Issue</th>
<th>GP Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>Awareness-raising</td>
<td>Discusses health problems associated with being physically inactive</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Recognition of the benefits of change</td>
<td>Discusses the potential benefits to them of proposed change-illustrates success</td>
</tr>
<tr>
<td>Preparation</td>
<td>Identification of barriers</td>
<td>Assists in identifying potential barriers faced and how these can be addressed-emphasises benefits</td>
</tr>
<tr>
<td>Action</td>
<td>Program of change</td>
<td>Work out an exercise plan-monitor closely</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Follow-up</td>
<td>Organises routine follow-up and address issues related to the likelihood of relapse</td>
</tr>
</tbody>
</table>
RELAPSE

Precontemplation

Contemplation

Preparation

Action

Maintenance

Buxton et al 1996
Ecological Model

- Assumes behaviour is affected by multiple factors, and that
- Behaviour influences and is influenced by the social environment
- Emphasises the need for multi-strategic, intersectoral and collaborative approaches
Ecological Model – Key Features

- **Core constructs:**
  - **3 dimensions:**
    - The individual and their behaviour
    - The physical environment
    - The social environment

- **5 levels of operation:**
  - Intra-personal
  - Inter-personal
  - Organisational
  - Community
  - Society

- **Application:**
  - Comprehensively addresses multiple influences on health behaviours

- **Limitations:**
  - Reliant on commitment, cooperation and collaboration of multiple partners with diverse needs and capacity
Applying EM

Ecological Model for Health Promotion Interventions
Approaches In Public Health

**Individual Approach**
Focuses on changing behavior
High risk approach

**Population Based Approaches**
Structural approach, Legislation, taxation, public policy, ecological, or environmental measures

Author: Shitalika goenka
Public Health Interventions

Policy Interventions

Educational Interventions

Enabling Environment (Financial, Social, Physical)

Health Beliefs and Behaviours (Community; Individual)

Desired Change
Health Communication

- Social Marketing
  - Mobile Phones
- Social Mobilization
  - Internet
- Media Advocacy
  - Social Networks
- Participatory Communication
  - Gaming
- Peer to Peer Learning
  - Persuasive Computing
# Social Marketing: Product Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trialability</td>
<td>Can the behaviour be tried out beforehand before permanent or full adoption? (e.g. wearing a cycling helmet)</td>
</tr>
<tr>
<td>Ease</td>
<td>How easy or difficult is it to adopt the behaviour? (e.g. wearing a seat belt, versus giving up smoking)</td>
</tr>
<tr>
<td>Risks</td>
<td>What are the risks of adopting the behaviour?</td>
</tr>
<tr>
<td>Image</td>
<td>Is the behaviour attractive or unattractive?</td>
</tr>
<tr>
<td>Acceptability</td>
<td>Is the behaviour socially acceptable?</td>
</tr>
<tr>
<td>Duration</td>
<td>Is the behaviour to be practiced once or repeatedly? Is it to be sustained over the short or long term?</td>
</tr>
<tr>
<td>Cost</td>
<td>Does the behaviour have a financial cost or not? (e.g. eating a healthier diet may involve more expense, drinking less alcohol does not)</td>
</tr>
</tbody>
</table>

Gaming In Diabetes

(Kahol K and Hartwell L – JDEST, 2011)
Power Of Policy
For Chronic Disease Prevention

TOBACCO

Evidence is available from many countries (including LMIC) that

- Taxation
- Ad Bans
- Smoke Free Policies
- Health Warnings

ARE EFFECTIVE

48.1% of mortality averted in UK (1981-2000) is attributable to reduced smoking

(Unal B et al. Circulation 2004)
## Power Of Policy For Chronic Disease Prevention

### DIET

- Evidence of preventive potential of policy interventions available from
  - Mauritius (Price of Edible Oils)
  - Poland (Import of F-V and Healthy Fats)
  - Finland (Farming; Marketing; Community Education)

### New Initiatives

- Food Labeling
- Reduced Salt in Processed Foods
- Ban on Trans-Fats
- Advertising Restrictions
Communication To Consumers; Mis-match Between Science And Commerce

- Colas and other sugary drinks
- Chips and salted snacks
- Biscuits, chocolates and other candy
- Fast food (Burgers, pizzas etc.)

IN MODERATION

Occasional

PLENTY

NUTRITION PYRAMID

ADVERTISING PYRAMID
International Agencies; Trans-national Trade And Media

GLOBAL COVENANTS, COMMERCE & COMMUNICATIONS

MOULDING THE MARKETS

NATIONAL POLICY FRAME WORK
Political, Economic, Social Motivators

CONSUMER CONCIOUSNESS
Health Professionals, Civil Society; Media

INDUSTRY PRACTICES
Private-Public Partnerships; Health Dividend
Challenge Of Regulation

Finding The Right Balance
Between Protection Of Individual Freedom
And Promotion Of Common Good

Conflict Between Libertarian, Liberal
And Communitarian Positions
(‘Nanny State’ Or ‘Responsible Regulator’? )
CHOICE?

Is the ‘Choice’

- Conscious?  correctly informed?
- Conditioned?  conned by false claims?
- Compelled?
Choice is Influenced By Many Factors Ranging From Brain’s Dopamine Response To Behavioural Economics
Conditional Cash Transfers

Programs

- *Opportunidades* (Mexico; 1997)
- Families In Action (Columbia)
- Bolsa Familia (Brazil)

Impact

- CCTs improve uptake of preventive health services and health status (Systematic Review)

  - Lagard M et al; JAMA, 2007
Societal Policies And Processes Influencing The Population Prevalence Of Obesity

POLICY APPROACHES (Global; National; Local)

Environment To Enable Individuals To Make and Maintain Healthy Choices

WIDER SOCIETY

INDIVIDUAL

FAMILY

NEIGHBORHOOD, COMMUNITY

Enhancement of Knowledge, Motivation, and Skills of Individuals

Media

Community Interventions

Settings Based

HEALTH COMMUNICATION

HEALTH CARE DELIVERY

GLOBALIZATION

DEMOGRAPHIC CHANGE

SOCIAL DETERMINANTS

BIOLICAL RISK

BEHAVORAL RISK

EDUCATION

CULTURAL AND SOCIAL NORMS

HEALTH INEQUITIES

GLOBALIZATION

ACCESSION TO CARE

QUALITY OF CARE

DRUGS & TECHNOLOGIES

SYSTEMS INFRASTRUCTURE
Health Beyond Health Care

“Health leaps out of Science and draws nourishment from the Society around it”

- Gunnar Myrdal
(Swedish Economist, Nobel Laureate)

POLICIES AND PROGRAMMES IN

• Finance • Water • Sanitation • Agriculture • Food Processing
• Education • Rural Development • Urban Design • Transport
• Communications • Trade • Environment

NEED TO BECOME SENSITIVE AND RESPONSIVE TO PUBLIC HEALTH CONCERNS!
Source: Dr Jaffar Hussain, WHO, Nov 2008
The Ottawa Charter, 1986

The First International Conference on Health Promotion in Industrialized Countries (Ottawa 1986).

Five strategic actions set out in the Ottawa Charter for Health Promotion

- Build healthy public policy
- Create supportive environments
- Strengthen community action
- Develop personal skills
- Reorient health services.
The Bangkok Charter For Health Promotion (2005)

• The Bangkok Charter affirms that policies and partnerships to empower communities, and to improve health and health equality, should be at the centre of global and national development.

• The four key commitments are to make health promotion:
  1. central to the global development agenda
  2. a core responsibility for all of government
  3. a key focus of communities and civil society
  4. a requirement for good corporate practice.
Health is not simply about individual behaviour or exposure to risk, but how the socially and economically structured way of life of a population shapes its health.

http://www.who.int/social_determinants/en/

(WHO CSDH, 2008)
There are two things which one should not watch when they are being made –

SAUSAGES and PUBLIC POLICY

- Bismarck
Catalysing Action At Policy Level

Q. What will make policymakers act through multi-sectoral policy interventions for NCD Prevention and Control of NCDs?

A. A combination of Evidence Based Advocacy and Rights Based Advocacy (Lessons From The Tobacco Control Movement)
Policy Needs: Interdisciplinary Research

Enlightened policy needs | Aided by

- **Scientific credibility** (evidence & rationale?) → Biomedical & Epidemiological research
- **Financial feasibility** (cost effective? affordable?) → Health economics research
- **Operational stability** (sustainable? scalable?) → Health systems research
- **Political viability** (is the community ready & receptive?) → Social sciences research
RESARCHERS
Accurate & Non-Trivial
SCIENTIFIC INFORMATION

Causes
Agents
Consequences
Prevention
Treatment

MEDIA
CIVIL SOCIETY &
PUBLIC

VALUE FOR HEALTH AS A HUMAN RESOURCE & HUMAN RIGHT

EVIDENCE
(Causation; Efficacy; Effectiveness)

Economics
(Cost of Neglect;
Cost of Action;
Cost-Effectiveness;
Affordability;
Sustainability)

POLICY MAKERS
Demand For Action

Concern
Fear
Outrage
Community Mobilization

Altruism
# Health Behaviours In The Context Of SDGs

**Post 2015 Agenda:**

<table>
<thead>
<tr>
<th>Intersecting Goals Of</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Health</td>
<td>- Agriculture &amp; Food Security</td>
</tr>
<tr>
<td>- Environment</td>
<td>- Water Security</td>
</tr>
<tr>
<td>- Poverty Alleviation</td>
<td>- Urban Development</td>
</tr>
<tr>
<td>- Education</td>
<td>- Energy Security</td>
</tr>
<tr>
<td>- Livelihoods</td>
<td>- Peace &amp; Human Security</td>
</tr>
</tbody>
</table>
Convergence In Recommendations

• Chronic Disease Prevention
• Protection of Environment

Sustainable Development Needs
• Urban environments which reduce vehicular congestion, promote physical activity and energy efficiency
• Diets which promote appropriate nutrient intake through sustainable consumption patterns at the population level
• Removal/Reduction of pollutants & toxic chemicals from the environment
Promoting Exercise – Walk The Dog!!
Persons
People
Populations
PLANET